



A.D. 1806 N° 2970.

S P E C I F I C A T I O N

OF

ROBERT SALMON.

TRUSSES.

L O N D O N :

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Trusses.

SALMON'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, ROBERT SALMON, of Woburn, in the County of Bedford, Surveyor, do send greeting.

WHEREAS His most Excellent Majesty King George the Third, by His Letters Patent under the Great Seal of the United Kingdom of Great Britain
5 and Ireland, bearing date at Westminster, the Second day of October, in the forty-sixth year of His reign, did give and grant unto me, the said Robert Salmon, my exors, admors, and assigns, His especial licence that I, the said Robert Salmon, my exors, admors, and assigns, during the term of years therein expressed, should and lawfully might make, use, exercise, and vend,
10 within England, Wales, and the Town of Berwick-upon-Tweed, my Invention of "**MATHEMATIC PRINCIPLED SAFE AND EASY TRUSSES FOR THE RELIEF AND CURE OF RUPTURES ;**" in which Letters Patent there is contained a proviso obliging me, the said Robert Salmon, by an instrument in writing under my hand and seal, to cause a particular description of the nature of my said
15 Invention, and in what manner the same is to be performed, to be inrolled in His Majesty's High Court of Chancery within one calendar month next and immediately after the date of the said recited Letters Patent, as in and by the same, relation being thereunto had, may more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said
20 Robert Salmon, do hereby declare that the nature of my Invention, and manner of executing and applying my Mathematic Principled Safe and Easy Trusses is as follows :—

First, explaining that, having from observations and mature consideration deduced that the formation of the human body will in each individual, in all

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its parts, bear a certain geometrical proportion the one part to the other ; also that the seat of complaint, in the generality of hernias or ruptures, is also relatively determinable by such proportions, and that, to uphold and keep in place the parts having a tendency to protrude, certain different degree of pressure is occasionally required on such part, and that such pressure should be in its 5 quantum of force and inclination thereof in certain determinate, defineable, and unalterable direction when applied. Hence it follows that to construct a proper truss some mathematic principle should apply ; and it being requisite that in all cases the force applied must be such as not only to keep up the part when the patient is in quiet easy position and situation, but it must be 10 also sufficiently powerful to resist the increased force of the part from various accidental and occasional exertions, situations, and circumstances. From these premises it may be further deduced that the truss should be so constructed as of itself to throw additional force on the part when by accident or design the exertions and situations before alluded to do occur. It is also 15 deducable that the truss should not touch or bear on any part but the rupture ; and as all springs hitherto used do bear on various and many parts in the circumference of the body, a considerable portion of their contracting force must be uselessly expended ; and such springs, being also firmly united to the pad, do, by any accidental removal of the spring, also displace the pad, thereby 20 occasioning disagreeable and dangerous consequences. Hence it is desirable that the spring be so connected that whatever change or position it takes in its circumference, the two extremes should uniformly press on the diseased part without removing the pad applied. On these principles my Invention rests, and that the whole is obtained, the annexed Drawing and following description 25 will sufficiently explain.

A, a spring made by geometric rules from the size of the body, measured so that when extended and applied it shall exactly fit, and exert a certain requisite and determinate force on the front pad H, and from thence on the rupture. The force of pressure, as also the size of the body it is meant to fit, is stamped on a 30 brass or other metal plate at the front end of the spring ; the length and extended shape of this spring to be such that when applied just on the hip it shall not press on any part of the body, but rest entirely with its whole contracting force exerting itself on the pads H and L, and when so fixed the wearer may readily pass his fingers all round between his body and the spring, whereby any 35 bearing on the hip is completely prevented, and the spring left at liberty to raise or fall and exert its force only where it is required.

In the Drawing hereto annexed the spring only is shewn ; but my Invention is also to make cases to the spring of silk, leather, or any other fit material, so

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as to render it more clean and pleasant to the body of the wearer. These cases are made to slip on or off in an instant, so that persons may change them as often as they please; also these cases, from the principle of the truss, require no stuffing, but are perfectly simple and as easy to make as apply.

5 Before describing the next parts, it is right to explain that the force of these my springs may in the simplest manner be either encreased or decreased. To explain which, let it be supposed that the spring A in itself will exert a force of seven pounds on the rupture when applied thereto. B, an additional spring occasionally to be applied on the back of A, and thereon bound by a small slip

10 of leather. This additional spring may be supposed to exert a force of two pounds; hence, by such simple addition the truss is made to compress with a force of nine pounds. C, another additional spring of four pounds' force, which may be applied instead of B, thereby making the truss to the power of eleven pounds. Thus, by this simple means, at a trifling expence, the patient

15 is enabled to vary the degree of force on the hernial aperture, the convenience and utility of which, by all experienced persons, cannot fail but be striking, for the patient not only has the means of gradually increasing the force to his case, but should time or change in constitution amend his complaint he may gradually reduce the application, and thereby more probably obtain the

20 radical cure. D, D, D, three screw holes (or more if required) in the front end of the spring, in either of which may be screwed the male part of the universal joint E, having on its top a strap pin G. By the use of these different holes the patient has the power of lengthening or shortening the spring to a certain extent, so as exactly to fit him, and, however lengthened or

25 shortened, the pin to which the strap fixes is always over the joint in the pad plate. E, the male part of an universal joint, being applicable to either of the holes D, D, D; by means of this part the force of the spring is conveyed to such part of the pad plate F as is requisite, and distributed properly on the ruptured part. F, plate of iron or other metal or material, of shape as the

30 case may require, so constructed as in a certain point to receive the force of the spring. In this plate is a part sunk to receive E, and making thereto the female part of the universal joint. G, pin to receive the strap, moveable with E. H, pad, being made of leather or any fit material, and stuffed with horsehair, wool, or other stuffing; and being so made and applied to the

35 plate F it may be instantly dismounted, and the stuffing took out, and made as easy as when new. The cases of this stuffing may be washed and replaced, or persons may, at a trifling expence, have a change of the same. I, I, I, holes in the back end of the spring corresponding with D, D, D, in the front end. K, pad plate, with button and pin to apply in either of the holes I, I, I, and when

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applied acting as an universal joint, with the back end of the spring, and having on the top of the button a pin to put the strap on. L, back pad of same construction and properties as the front pad. M, strap applied on the back pin, and applicable to the pin G.

Having thus described the truss, it must be manifest that when applied the whole force of the spring will be on the rupture, and opposite support on the body, and that the force of the spring is by the universal joints conveyed to the pads, thereby regularly forcing them to bear uniformly on the part they are constructed to rest on, and that notwithstanding any change in the position of the circumference of the spring; the spring also, being free from the body, may be raised or lowered instantaneously at pleasure of the patient, and worn either below the hip or just above, which last position will be found best; as so placed the patient may rise his thigh to any elevation without touching the spring. In the application it is meant the spring should always spend its whole force on the pads, one constantly pressing towards each other. The front pad plate and pad is of such shape and figure that its lower part always presses on the top edge of the pelvis, and retains the rupture. The upper part of the pad is at same time in a small proportion resting on a flexible part of the abdomen, a little above the pelvis; and from this peculiar resting, and being so kept by the universal joint forming a self-regulating force on the pad, a most desirable effect is produced, and the necessity of guarding against exertions by an extra strong spring is avoided, for in all actions tending to depress the contained parts of the abdomen, the effect will be first and most forcibly impelled on the upper part of the pad, which immediately is forced somewhat outwards, thereby at same moment inclining inwards the lower and effective part of the pad.

Thus I have generally described my Invention, not confining myself exactly to the shape of the Drawing or description thereto, but claiming every mode of exercising and applying my principles to the formation of trusses, by making them determinate in their force and easy in their application; in claiming all the various means of making universal and other joints between the spring and the pad, making pad plates and pads which shall find their due bearing on the body by the compression of the spring only, and being unalterable from any change in the situation of the spring. On my principles I do execute the springs, pads, and every other part of all and any of the various materials fit for the purpose. I also propose to make trusses of distinct and different shape from the figure subjoined. In some cases it may be required to extend one end of the spring further than the

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other. In some cases where scrotal hernias are situated on the one side, the spring may be made to go round and apply on the opposite side, and in all cases my trusses will indifferently apply either to the left or right side. Further, it is requisite to state, that although in the Drawing I have shewn a
5 truss applicable to the same side of the body as the complaint is on, and requiring a strap to keep the pads in place, yet I do declare that my most approved trusses require no such strap or any strap whatever, but being differently made and placed on the side opposite to the complaint, such truss will firmly keep in its place without any strap, and, being so applied, will still
10 retain all the properties before described. But notwithstanding this difference, the description and Plate fully refer to the principle and nature of my truss, only that in these last described the strap is omitted and the spring of different lengths to what it is when applied to the same side of the body. And I hereby particularly claim the Invention of applying trusses of every sort
15 to the contrary side of the body, and also of making them perfectly efficient without any strap at all, either round the hip, thigh, or other part of the body, and this purpose I can in the most perfect way effect by the springs placed on either sides, or in double complaints, when placed on both sides ; and altho' I have described a truss for inguinal hernia only, yet I do apply the same
20 principles and construction for umbilical, femorial, or any other kind of hernia.

In witness whereof, I, the said Robert Salmon, have hereunto set my hand and seal, the Twenty-fourth day of October, in the year of our Lord One thousand eight hundred and six.

25

ROBERT SALMON. (L.S.)

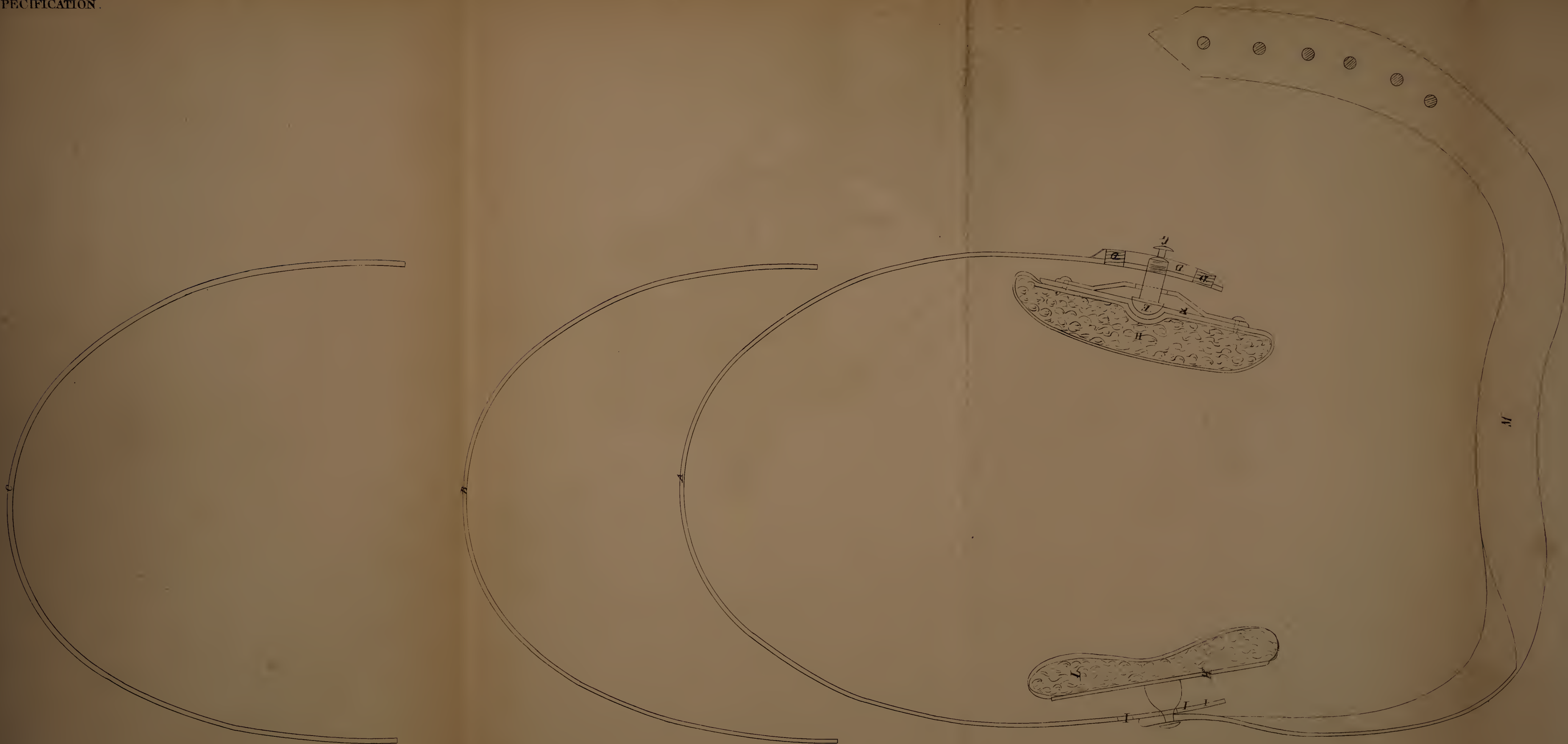
AND BE IT REMEMBERED, that on the Twenty-fourth day of October, in the year of our Lord 1806, the aforesaid Robert Salmon came before our said Lord the King in His Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified. And
30 also the Specification aforesaid was stamp'd according to the tenor of the Statute made for that purpose.

WOLLEY, Extra.

Inrolled the Twenty-seventh day of October, in the year of our Lord One thousand eight hundred and six.

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